



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,456	07/11/2003	John C. Opie	60458.00003	3860

7590

06/05/2006

SQUIRE, SANDERS & DEMPSEY L.L.P.
Two Renaissance Square
40 North Central Avenue, Suite 2700
Phoenix, AZ 85004-4440

EXAMINER

SAM, CHARLES H

ART UNIT	PAPER NUMBER
----------	--------------

3731

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/618,456	Applicant(s) OPIE ET AL.	
	Examiner Charles H. Sam	Art Unit 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-30 is/are allowed.
- 6) ☒ Claim(s) 1-27,31-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/13/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The informal drawings are not of sufficient quality to permit examination. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Applicant is given a TWO MONTH time period to submit new drawings in compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a). Failure to timely submit replacement drawing sheets will result in ABANDONMENT of the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1,4-12,15-25,27,32 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Dance et al. 5,078,723. Dance discloses a cutting device as claimed comprising a cutting head 56 having a leading edge 58 with annular cutting blade 35, an

attachment section, and a body section having a distal end, a proximal end and an inner passage extending therethrough.

Regarding claim 4, Dance discloses the tubular body section 14.

Regarding claims 7,8,27 and 33 Dance discloses a helical structure 35.

Regarding claim 9, Dance discloses the endovascular component 18.

Regarding claim 10, Dance discloses the endovascular component comprising a flexible tube 12 and a medical guide wire 18.

Regarding claim 11, Dance discloses an endovascular component including one or more structures.

Regarding claim 12, Dance discloses the cutting head 56 pivoting when attached to the body section 14.

Regarding claim 15, Dance discloses an automatic advancement 35.

Regarding claim 16, Dance discloses an electric motor 74.

Regarding claims 17-19, Dance discloses a cylindrical handle 60.

Regarding claim 20, Dance discloses an endovascular component 18 having a diameter smaller than the diameter of the tubular body member, a cutting tool having a tubular body section 14, a cutting head 56, and an opening extending through the cutting tool.

Regarding claim 21, Dance discloses an endovascular component 12 including an inner and outer section.

Regarding claim 22, Dance discloses a guide wire 18.

Regarding claim 23, Dance discloses a handle 60.

Regarding claim 24, Dance discloses an automatic advancement 35.

Regarding claim 32, Dance discloses a cutting tool comprising a cutting head 56, a body section 12 connected to the cutting head 56, and a structure 35 to assist in advancing the cutting tool.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dance et al. 5,078,723.

Regarding claims 13 and 14, the material such as steel and polycarbonate would have been obvious matter of design choice since applicant has not disclosed using steel or polycarbonate is for any specific purpose.

3. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dance et al. 5,078,723 in view of Sepetka et al. 5,551,443. Dance discloses the invention as claimed except for a coated surface. However, Sepetka et al. disclose in column 4, lines 46-65 a hydrophilic coating. It would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Dance by including a coating in view of Sepetka et al. to facilitate movement of the device through passageways.

Art Unit: 3731

4. Claims 2,26 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dance et al. 5,078,723 in view of Bundy et al. 4,653,496. Dance discloses the invention as claimed except for a funnel-shape of the inner cavity of the cutting head. However, this funnel-shaped cavity is clearly disclosed by Bundy et al. as shown in figure 8. It would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Dance et al. by including a funnel-shaped cavity to the cutting head for providing an sharp cutting edge.

Regarding claim 31, Dance discloses a cutting head 56 having a leading edge 58 with annular cutting blade 35, an inner cavity and an attachment structure.

5. Claims 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dance et al. 5,078,723 in view of Plaia et al. 5,084,010. Dance discloses the invention as claimed except for a threaded connection between the cutting head and body section. However, this lacking feature is disclosed by Plaia as shown in figures 5A and 5B, the threaded fitting 70 of the cutting head 62. It would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Dance by including a threaded connection in view of Plaia et al. so that the cutting head can be removed from the body section.

Allowable Subject Matter

6. Claims 28-30 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles H. Sam whose telephone number is (571) 272-4703. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan T. Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CS
May 22, 2006


GLENN K. DAWSON
PRIMARY EXAMINER